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A NEW SUBSPECIES OF *TROPIDOPHIS GREENWAYI* FROM THE CAICOS BANK

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The species of small boa, *Tropidophis greenwayi*, has heretofore been known only from Ambergris Cay.¹ No additional specimens of *T. greenwayi* have been taken since the type and paratype were collected in 1936. At the time of their review of the Caribbean snakes of the genus *Tropidophis*, Schwartz and Marsh (1960) examined the two extant specimens and separated them from the Cuban and Bahaman species *T. pardalis* (with which they had been nomenclatorially associated) and *T. canus* (to which they might be expected on geographic grounds to be related).

From January 11 to 22, 1961, the writer and David C. Leber collected on South Caicos and its adjacent Long Cay and visited the Ambergris Cays as well in order to secure additional specimens of *T. greenwayi* and to ascertain if this snake were more widely distributed on the Caicos Bank. We were unable to find the boa on the Ambergris Cays, but a series of fourteen individuals was collected for us on South Caicos and Long Cay by residents of these islands. Comparison of this large series with the two specimens of topotypic *T. greenwayi* indicates that the South Caicos and Long Cay populations represent a different form, which may be called:

TROPIDOPHIS GREENWAYI LANTHANUS, new subspecies

Type: Museum of Comparative Zoology (MCZ) 69630, from 0.5 mi. north of Cockburn Harbour, South Caicos, taken 22 January, 1961, by a native for A. Schwartz.

Paratypes: MCZ 69619, 0.5 mi. east of Cockburn Harbour, South Caicos, 13 January, 1961; MCZ 69632, same locality, 14

¹Actually, "Ambergris Cay" is one of a pair of cays, both known as the Ambergris Cays, which lie about 13 miles southwest of Cockburn Harbour on South Caicos.

January, 1961; MCZ 69620, same locality, 19 January, 1961; MCZ 69621, 7 mi. northeast of Cockburn Harbour, South Caicos, 20 January, 1961; MCZ 69622, 0.5 mi. east of Cockburn Harbour, 21 January, 1961; MCZ 69623, Cockburn Harbour, 21 January, 1961; MCZ 69624-25, Long Cay, off Cockburn Harbour, South Caicos, 21 January, 1961; MCZ 69626-28, same locality, 22 January, 1961; MCZ 69629, 69631, same data as type. All specimens were collected by natives for A. Schwartz.

Distribution: Known only from South Caicos and adjacent Long Cay on the Caicos Bank.

Diagnosis: A subspecies of *T. greenwayi* differing from the nominate form in higher number of ventral scutes and in coloration and pattern.

Description of type: An adult spurred male with the following measurements and counts: total length, 257 mm., tail, 30 mm.; ventral scutes 160, subcaudal scutes 28; supralabials 9/10; infralabials 11/11; parietals in contact; preoculars 1/1, postoculars 3/2; dorsal scales smooth, rows 25-27-19; dorsal paramedian blotches 42/49; tail blotches four. Coloration: Head uniformly

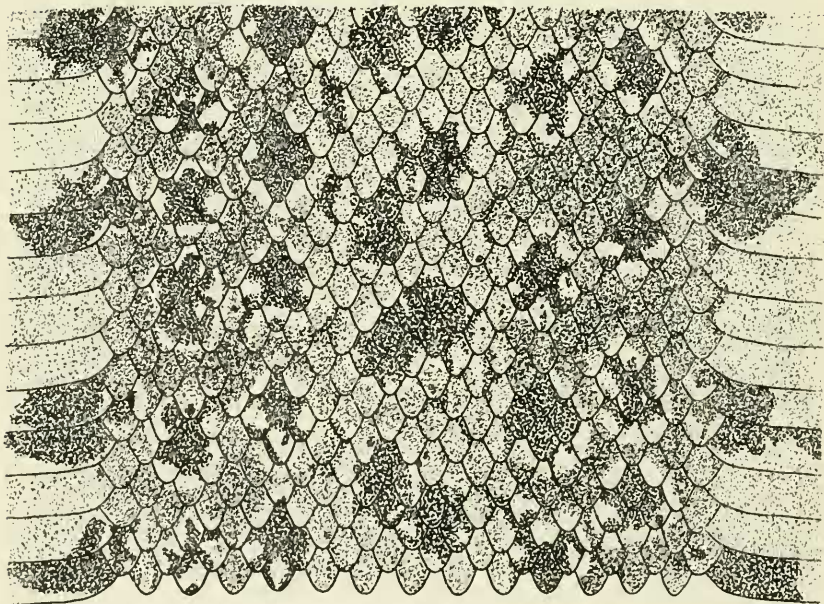


Figure 1. Dorsal midbody pattern of *Tropidophis greenwayi lanthanus* (MCZ 69630, type).

dark brown dorsally; neck slightly paler, quickly grading posteriorly into a grayish-tan middorsal zone about ten scales wide, this zone including the two paramedian rows of dark brown dorsal blotches, each blotch faintly outlined with pale gray, the dorsal zone continuing posteriorly onto the upper surface of the tail, where it merges imperceptibly with the yellow coloration of the tail tip. Sides darker brown, becoming more reddish ventrally, and enclosing three rows of lateral blotches, the uppermost two rows the least conspicuous (because of the closeness of their color to that of the ground color and the reduction of pale outlining), the lowermost row outlined by gray especially along the posterior margins. Ventral surface reddish-tan with two rows of dark brown blotches, which may extend dorsally onto the first two scale rows, do not coalesce medially on the venter, and are outlined posteriorly in white. Supralabials dark brown, the posterior three somewhat flecked and blotched with cream. Hemipenes extruded, weakly bifurcate and weakly spinose distally.

Paratypes: The paratypes include three males and ten females: I cannot discern any difference in coloration, pattern or scalation between the sexes nor between the snakes from South Caicos and Long Cay, and all are discussed as one unit. All three males are spurred, as is the type. Two of the males are juveniles, each with a total length of 140 mm. Males range in total length from 140 mm. to 320 mm., whereas females vary between 250 mm. and 336 mm. Ventrals range between 156 and 165 (mean 161.2), caudals between 26 and 30 (mean 28.0). All have 1/1 preoculars. Postoculars vary from 2/2 (two snakes), 2/3 (six, including type), and 3/3 (five), thus showing a tendency toward having three postoculars in 85 per cent of the population; one snake has the head scales so damaged that its data are omitted. Paramedian blotches vary from 27 to 49 in the series, the largest discrepancy between right and left counts on the same snake being seven blotches, as in the type and one other individual. The average blotch number is 39.9. One snake, as noted below, lacks blotches completely. Scale rows at midbody are either 25 (eleven snakes) or 27 (three snakes). The number of rows of blotches around the body are eight or ten, with only one snake showing the reduction to eight rows of blotches. The tail/total length ratio ($\times 100$) averages 10.5 (9.4–12.1; the highest ratio is shown by one of the juvenile males). All of the paratypes have the parietals in contact, and have the dorsal scales smooth. Upper labials vary from 9 to 10, and lower labials from 9 to 12.

Coloration of the paratypes: All the adult paratypes except one agree very closely with the type. All have a lighter median zone containing two rows of paramedian blotches; this middorsal zone was noted in life as matching in various individuals (color notations from Maerz and Paul, 1950): Pl. 14A5, Pl. 15C7, Pl. 13A6, Pl. 14A4, Pl. 12A6, all of which are shades of buffy tan to grayish tan. The sides are somewhat darker (Pl. 15A9, Pl. 16A6, Pl. 13A10, Pl. 15C8, Pl. 15C8), then becoming lighter on the lower scale rows and venter to a more red coloration (Pl. 14G10, Pl. 15A4, for example). The blotches themselves are always dark brown. The venter varies from a rich reddish tan to an almost chocolate brown, at times relieved by rather extensive white borders to the brown ventral blotches. One snake, an adult female, is unusual in that the pattern consists merely of the paler mid-dorsal zone and darker sides, without any indication of lateral or ventral blotches; the paramedian blotch rows are represented by a rather diffuse dark brown smudging along the middle of the back. The tail tips are dark in two snakes and light (yellow) in ten; two are indeterminate.

The two juvenile paratypes are very like the adults in coloration and pattern; the pattern elements are not appreciably brighter than in the adults (in contrast to juvenile and adult *T. canus* where the juveniles show the dorsal pattern much more distinctly than the adults). There is also no evidence of the lateral nuchal stripe which is a common feature of both juvenile and adult *T. canus* (Schwartz and Marsh, *op. cit.*: 61) and especially prominent in the juveniles.

In addition, the young paratypes have white, rather than brown, venters; apparently the darker pigmentation comes with increase in size.

Comparisons: *T. g. lanthanus* requires comparison only with the typical form. It is quite distinct from the adjacent Bahaman and Hispaniolan forms of *Tropidophis*. The comparison is hampered, however, by the paucity of specimens of the nominate form. If the type and paratype represent a fair sample of *T. greenwayi* on the Ambergris Cays (and it is possible that they do not), then *lanthanus* is certainly very distinct from the snakes on these outlying cays. Comparison of the illustration (Figure 1) of *T. g. lanthanus* with that of the type of *T. g. greenwayi* (Schwartz and Marsh, *op. cit.*: fig. 7) at once demonstrates the pattern differences. In the nominate form there is no indication of the dorsal pale zone, the entire dorsal surface has a mottled or stippled effect,

with blacks, browns, tans, and whites more or less intermixed; the blotches are extremely obscured by the mottled and stippled markings on the interspaces. Such is not the case in *lanthanus* where in all specimens but one (the blotchless female mentioned above) the blotches are quite distinct and there is no interspace stippling. It might be argued that the *greenwayi* coloration is a peculiarity of extreme age or adulthood; in fact the type of *greenwayi* is the largest specimen of the species presently available. However, in the largest specimen of *lanthanus*, the trend is obviously just the reverse of that in the nominate snakes, and the pattern is completely obliterated except for the dorsal pale zone. Another feature of *greenwayi* is the "salt-and-pepper" effect on the dorsal surface of the head; such a condition does not occur in *lanthanus*, where the head is always uniformly dark brown. In number of ventrals, *lanthanus* embraces the 157-158 ventral counts known from the two *greenwayi* (both are males). However, the specimen of *lanthanus* which has the lowest count for that race (a female with 155) stands alone in the series; all other *lanthanus* have counts ranging from 160 to 165. I regard this single specimen as being somewhat aberrant. When large series of topotypic *greenwayi* finally become available, I suspect that they will have ventral counts lower than those of *lanthanus*.

Both specimens of *greenwayi* have 2/2 postoculars, whereas only two of thirteen *lanthanus* have such a count; the remainder have counts of 2/3 or 3/3, the third postocular being wedged between the fifth and sixth supralabials. It is possible that a tendency toward 3/3 postoculars is characteristic of *lanthanus*.

Remarks: Perhaps the most interesting feature of the new specimens of *T. greenwayi* here reported is their uniformity. For example, the species was partly defined (Barbour and Shreve, 1936:2) by having the parietals in contact. Schwartz and Marsh (*op. cit.*:57) noted that this character, as with all scale characters in this assemblage of small boas, was variable; the same comment applies equally to dorsal scale carination and number of dorsal scale rows. But all new specimens of *T. greenwayi* do indeed have parietals in contact and smooth scales. In fact, *T. greenwayi* can be in addition characterized as being a *Tropidophis* with smooth dorsals usually in 25 scale rows and typically ten rows of blotches, all features which were uncertain at the time of the review of the Caribbean *Tropidophis*. Likewise, additional data are now available on tail/total length ratio in *T. greenwayi*; the ratio averages 10.5, which is the lowest mean of any member of

the assemblage, most closely approached by that of *T. canus canus* (10.7).

Even with additional material available, I am unable to guess as to the affinities and origin of *T. greenwayi*. With two juveniles now at hand, the relationships of this species to *T. canus* seems even more remote than it did previously (Schwartz and Marsh, *op. cit.* : 62). This snake appears to have been long isolated from its relatives, whatever they may have been, and other than to remark that it is a member of the *pardalis-maculatus* assemblage, little can be said.

I suspect that *T. greenwayi* will be found to occur on the other major islands of the Caicos Bank. It is surprising that it has been so long overlooked on South Caicos where the natives knew of it as soon as approached about small snakes. The name *lanthanas* is an allusion to the fact that the species has been overlooked on South Caicos. This boa appears to be genuinely lacking from Grand Turk and probably other islands on the Turks Bank, which is separated from the Caicos Bank by the Turks Island Passage: natives there were aware of *Epicrates* on some of the outer cays, but did not know of any snakes at all on Grand Turk. No snakes of any species were encountered in the one week spent by us on Grand Turk.

Figure 1 was executed by Ronald F. Klinikowski. I wish to thank him for his efforts on my behalf.

LITERATURE CITED

BARBOUR, THOMAS, AND BENJAMIN SHREVE

1936. New races of *Tropidophis* and of *Ameiva* from the Bahamas. *Proc. New England Zool. Club*, **16**: 1-3.

MAERZ, A., AND REA PAUL

1950. A dictionary of color. New York, McGraw-Hill Book Co., pp. i-vii, 1-23, 137-208, 56 pls.

SCHWARTZ, ALBERT, AND ROBERT J. MARSH

1960. A review of the *pardalis-maculatus* complex of the boid genus *Tropidophis* of the West Indies. *Bull. Mus. Comp. Zool.*, **123**(2): 50-84, 10 figs.